

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended) An electronic system for locating an object comprising:

a ~~monitoring~~ monitor unit having a micro-controller, wherein the monitor unit transmits a monitor direct sequence spread spectrum (MDSSS) signal having a pseudo-random noise sequence, a monitor first frequency component and a monitor second frequency component;

a tracked unit placed on ~~[[said]]~~ the object and receiving ~~[[a]]~~ the ~~monitor direct sequence spread spectrum (MDSSS)-MDSSS~~ MDSSS signal from ~~[[said]]~~ the ~~monitoring~~ monitor unit and transmits a tracked direct sequence spread spectrum (TDSSS) signal having a pseudo-random noise sequence, a first frequency component and a second frequency component to ~~[[said]]~~ the ~~monitoring~~ monitor unit; and

wherein the ~~[[a]]~~ first phase detector placed on said monitor unit to compare micro-controller compares ~~[[a]]~~ the first frequency component of ~~[[said]]~~ the TDSSS signal to the ~~[[a]]~~ monitor first frequency component of the MDSSS signal creating a first phase difference utilized for a coarse accuracy determination of the ~~a object-ranging~~ distance relative between the ~~to said~~ monitor unit and the tracked unit,

further wherein the micro-controller compares the second frequency component of the TDSSS signal to the monitor second frequency component of the MDSSS signal to create a second phase difference utilized for a medium accuracy determination of range between the tracked unit on the object and the monitor unit.

Claim 2 (cancelled)

Claim 3 (currently amended) ~~[[An]]~~ The electronic system as recited in Claim ~~[[2]]~~ 1, wherein the monitor unit further comprising: includes a monitor phase detector, the MDSSS signal further includes a monitor third frequency component and the TDSSS signal further includes a third

frequency component, wherein the monitor phase detector a third phase detector comparing compares the [[a]] third frequency component of [[said]] the TDSSS signal with [[a]] the monitor third frequency component to create a third phase difference; and the micro-controller an output of second phase detector determines the number of repeated frequency cycles of [[said]] the tracked third frequency component of [[said]] the TDSSS signal [[for]] to the monitor third frequency component of the MDSSS signal for fine accuracy determination of said-object ranging distance relative to said monitor unit range between the tracked unit on the object and the relative to monitor unit of said-object.

Claim 4 (currently amended) [[An]] The electronic system as recited in Claim 1, wherein [[said]] the first frequency component of [[said]] the TDSSS signal is a repetition rate of [[said]] the tracked TDSSS pseudo-random noise sequence and [[said]] the first monitor first frequency component is a repetition rate of [[said]] the monitor MDSSS pseudo-random noise sequence.

Claim 5 (currently amended) [[An]] The electronic system as recited in Claim 1, wherein [[said]] the second frequency component of [[said]] the TDSSS signal is a chipping frequency of [[said]] the tracked TDSSS pseudo-random sequence and [[said]] the monitor second frequency component of [[said]] the MDSSS is a chipping frequency of [[said]] the monitor MDSSS pseudo-random noise sequence.

Claim 6 (currently amended) [[An]] The electronic system as recited in Claim [[1]] 3, wherein [[said]] the third frequency component of [[said]] the TDSSS signal is a carrier frequency and [[said]] the monitor third frequency component of [[said]] the MDSSS signal is a carrier frequency.

Claim 7 (currently amended) [[An]] The electronic system as recited in Claim 1, wherein [[said]] the monitor unit further includes comprises a first monitor antenna disposed on [[said]] the monitor unit and a second monitor antenna disposed on [[said]] the monitor unit, which said wherein the first monitor antenna is cross-polarized relative to [[said]] the second monitor

antenna for measuring ~~[[said]] the object ranging~~ distance and relative angle from ~~[[said]] the~~ monitor unit.

Claim 8 (currently amended) ~~[[An]] The electronic system as recited in Claim 1, wherein [[said]] the second frequency component of [[said]] the TDSSS signal is a pseudo-random noise sequence input into a first shift register and a second shift register, creating [[said]] the first phase difference between [[said]] the second frequency component of TDSSS signal and [[said]] the monitor second frequency component of [[said]] the MDSSS signal.~~

Claim 9 (currently amended) ~~[[An]] The electronic system as recited in Claim 1, wherein [[said]] the tracked unit further includes a tracked modulator and a tracked phase detector, wherein the tracked modulator shifts the TDSSS pseudo-random noise sequence and inputs the shifted TDSSS pseudo-random noise sequence into the tracked phase detector until the TDSSS pseudo-random noise sequence locks with the MDSSS pseudo-random noise sequence, receives a monitor carrier frequency from [[said]] the monitor unit, wherein [[said]] the tracked unit includes a phase lock loop that locks [[said]] the MDSSS signal with [[said]] the TDSSS signal.~~

Claim 10 (currently amended) ~~[[An]] The electronic system as recited in Claim 1, wherein [[said]] the monitor unit further comprises includes a monitor compass having concentric rings, wherein the monitor micro-controller is in electrical communication with the the monitor compass, which displays location of [[said]] the tracked unit within several the concentric rings to provide a visual display for a user of [[said]] the object ranging distance between [[said]] the monitor unit and [[said]] the tracked unit, when in use.~~

Claim 11 (currently amended) ~~[[An]] The electronic system as recited in Claim 1, wherein [[said]] the monitor unit further comprises a monitor compass having user selectable zones represented by concentric zone rings —which, wherein the monitor compass displays [[said]] the object-ranging distance of [[said]] the tracked unit relative to [[said]] the monitor unit within the user selectable zones, and a user selects one zone from several concentric rings of coverage.~~

Claim 12 (currently amended) An electronic system for locating an object comprising:

a ~~monitoring~~ monitor ~~[[unit]] unit~~ having a micro-controller having a monitor phase detector, wherein the monitor unit transmits a monitor direct sequence spread spectrum (MDSSS) signal having a pseudo-random noise sequence, a monitor first frequency component and a monitor second frequency component;

a tracked unit placed on ~~[[said]] the~~ object receiving ~~[[a]] the~~ monitor digital spread spectrum signal (MDSSS) MDSSS signal from ~~[[said]] the~~ monitoring monitor unit and transmits a tracked direct sequence spread spectrum (TDSSS) signal having a first frequency component, a second frequency component and a pseudo-random noise sequence, to ~~[[said]] the~~ monitoring monitor unit; ~~[[and]]~~

wherein the micro-controller ~~[[a]] first phase detector placed on said monitor unit to~~ compare compares ~~[[a]] the~~ first frequency component of ~~[[said]] the~~ tracked direct sequence spread spectrum TDSSS signal to the ~~[[a]] monitor first frequency component of the MDSSS signal~~ creating a first phase difference utilized for a coarse accuracy determination of ~~[[said]] the~~ object distance ranging relative to ~~[[[said]] the~~ monitor unit;

further wherein, the micro-controller ~~a second phase detector included with said monitor unit that~~ compares ~~[[a]] the~~ second frequency component of ~~[[said]] the~~ tracked direct sequence spread spectrum TDSSS signal with ~~[[a]] the~~ monitor second frequency component of the MDSSS signal to create a second phase difference; and

wherein the monitor phase ~~a first~~ detector monitors phase error output to determine determines number of repeated frequency periods of ~~[[said]] the~~ second frequency component of the TDSSS signal for a medium accuracy determination of range relative to the monitor unit of ~~[[said]] the~~ object range,

wherein ~~[[said]] the~~ first frequency component of ~~[[said]] the~~ TDSSS signal is a repetition rate of ~~[[said]] the~~ tracked TDSSS pseudo-random noise sequence and

wherein ~~[[said]] the~~ second frequency component of ~~[[said]] the~~ TDSSS signal is a chipping frequency of ~~[[said]] the~~ tracked TDSSS pseudo-random noise sequence.

Claim 13 (currently amended) ~~[[An]] The~~ electronic system as recited in Claim 12, wherein the tracked unit further includes a tracked phase detector, the TDSSS signal further comprising:

includes ~~a third phase detector comparing a third frequency component and the MDSSS signal~~
~~further includes a monitor third frequency component, wherein the tracked phase detector~~
~~compares the third frequency component of [[said]] the TDSSS signal with [[a]] the third~~
~~monitor third frequency component of the MDSSS to create a third phase difference; and~~
~~an output of the second phase detector wherein the micro-controller determines the~~
~~number of repeated frequency cycles of [[said]] the third frequency component of [[said]] the~~
~~TDSSS signal for fine accuracy determination of an object ranging distance between [[said]] the~~
~~monitor and tracked unit.~~

Claim 14 (currently amended) [[An]] The electronic system as recited in Claim [[12]] 13,
wherein [[said]] the third frequency component of [[said]] the TDSSS signal is a carrier
frequency and [[said]] the monitor third frequency component of [[said]] the MDSSS signal is a
carrier frequency.

Claim 15 (currently amended) [[An]] The electronic system as recited in Claim 12, wherein
[[said]] the monitor unit further comprises a first monitor antenna disposed on [[said]] the
monitor unit and a second monitor antenna disposed on [[said]] the monitor unit, which said
wherein the first monitor antenna is cross-polarized relative to [[said]] the second monitor
antenna for measuring [[said]] the object range and relative angle from [[said]] the monitor unit.

Claim 16 (currently amended) [[An]] The electronic system as recited in Claim 12, wherein the
monitor unit further includes a first shift register and second shift register and [[said]] the second
frequency component of [[said]] the TDSSS signal is a pseudo-random noise sequence input into
[[a]] the first shift register circuit and [[a]] the second shift register circuit placed with said
~~monitor unit, creating [[said]] the first phase difference between [[said]] the second frequency~~
~~component of [[said]] the TDSSS signal and [[a]] the second frequency component of [[said]] the~~
~~MDSS signal, which is a pseudo-random noise sequence.~~

Claim 17 (currently amended) [[An]] The electronic system as recited in Claim 12, wherein
[[said]] the monitor unit further comprises a monitor compass having at least four coverage

zones indicated by concentric rings, which displays object ranging distance between [[said]] the tracked unit and [[said]] the monitor unit, wherein [[said]] a user selects one coverage zone from the several concentric rings of coverage for tracking [[said]] the tracked unit.

Claim 18 (currently amended) A method for detecting the range of an object comprising:

placing a tracked unit on [[said]] the object, wherein the track unit includes a tracked direct spread spectrum (TDSSS) signal having a first frequency component and a second frequency component;

transmitting from a monitor unit a monitor direct sequence spread spectrum (MDSSS) signal having a monitor first frequency component and a monitor second frequency component from a monitoring unit, wherein the monitor unit includes a monitor phase detector;

receiving [[said]] the MDSSS signal at [[said]] the tracked unit;

transmitting from [[said]] the tracked unit [[a]] the tracked direct sequence spread spectrum (TDSSS) TDSSS signal to [[said]] the monitoring monitor unit;

comparing [[a]] the first frequency component of [[said]] the TDSSS signal to [[a]] the monitor first frequency component of [[said]] the MDSSS signal within [[a]] the first monitor phase detector; [[and]]

outputting a first phase shift for course accuracy determination of [[said]] the object range relative to [[said]] the monitor unit;

comparing the second frequency of the TDSSS signal to the monitor second frequency component of the MDSSS signal within the monitor phase detector;

outputting a second phase shift; and,

determining the number of repeated frequency periods of the second frequency component of the TDSSS signal.

Claim 19 (canceled)